

Abstract

The invention relates to a device comprising a process chamber which is arranged in a reaction housing and which can be heated especially by supplying heat to a substrate holder, comprising a gas inlet for the admission of gaseous starting material, whereby the decomposition products thereof are deposited on a substrate maintained by a substrate holder to form a layer, also comprising at least one sensor acting upon the inside of the process chamber for determining layer properties further comprising an electronic control unit for controlling the heating of the process chamber, mass controllers for controlling the flow of the starting materials and a pump for controlling the pressure of the process chamber, characterized in that the electronic control unit forms modified process parameters from deviation values obtained upon growth of the calibrating layer with the aid of stored calibrating parameters, thereby controlling the heating of the process chamber, the flow controllers and the pump upon growth of the active layer sequence.